

## Composite Morningness Questionnaire

25

**Purpose** Finding the psychometric properties of alternative morningness questionnaires to be inadequate, developers culled items from two of these scales—the Horne Östberg Morningness-Eveningness Questionnaire [3] (Chap. 54)\* and a diurnal type scale by Torsvall and Akerstedt [1] – to create the Composite Morningness Questionnaire. Through factor analysis, 13 items were selected from the two original questionnaires. Among these items, three factors were identified: morning activities, morning affect, and eveningness.

**Population for Testing** The scale has been validated in population of more than 500 undergraduate students.

**Administration** The scale is a self-report, paper-and-pencil measure requiring between 3 and 5 min for completion.

**Reliability and Validity** When developing the scale, Smith and colleagues [2] combined the two original questionnaires, analyzed out the three most reliable factors, and selected the items that

best represented those factors. The resulting scale was found to have an internal consistency of .87.

**Obtaining a Copy** A copy can be found in the original article published by developers [2].

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**Scoring** For questions regarding preferred sleeping and waking times, respondents select the most suitable option from a list of time increments. Issues like ease of waking, alertness throughout the day, and exercise are also queried. Potential scores for the scale's items range from 1 to 4 or 5, with higher scores indicating a greater degree of morningness. Cutoffs for the scale were chosen using the upper and lower percentiles of the scale: A score of 22 or below indicates an evening type, a score above 44 indicates a morning type, and scores in between receive a classification of intermediate.

\*Not included in this edition. Will be cited in the next version. In the interim, this and new emerging scales are

listed and analysed in a similar way on our website [www.sleepontario.com](http://www.sleepontario.com) under “Scales”.

### Composite Morningness Questionnaire

Directions: Please *check* the response for *each* item that best describes you.

1. Considering only your own “feeling best” rhythm, at what time would you get up if you were entirely free to plan your day?

5:00-6:30 a.m.	<input type="checkbox"/> (5)
6:30-7:45 a.m.	<input type="checkbox"/> (4)
7:45-9:45 a.m.	<input type="checkbox"/> (3)
9:45-11:00 a.m.	<input type="checkbox"/> (2)
11:00 a.m. – 12:00 (noon)	<input type="checkbox"/> (1)

2. Considering your only “feeling best” rhythm, at what time would you go to bed if you were entirely free to plan your evening?

8:00-9:00 p.m.	<input type="checkbox"/> (5)
9:00-10:15 p.m.	<input type="checkbox"/> (4)
10:15 p.m. – 12:30 a.m.	<input type="checkbox"/> (3)
12:30-1:45 a.m.	<input type="checkbox"/> (2)
1:45-3:00 a.m.	<input type="checkbox"/> (1)

3. Assuming normal circumstance, how easy do you find getting up in the morning?  
(Check one.)

Not at all easy	<input type="checkbox"/> (1)
Slightly easy	<input type="checkbox"/> (2)
Fairly easy	<input type="checkbox"/> (3)
Very easy	<input type="checkbox"/> (4)

4. How alert do you feel during the first half hour after having awakened in the morning?  
(Check one.)

Not at all alert	<input type="checkbox"/> (1)
Slightly alert	<input type="checkbox"/> (2)
Fairly alert	<input type="checkbox"/> (3)
Very alert	<input type="checkbox"/> (4)

5. During the first half hour after having awakened in the morning, how tired do you feel?  
(Check one.)

Very tired	<input type="checkbox"/> (1)
Fairly tired	<input type="checkbox"/> (2)
Fairly refreshed	<input type="checkbox"/> (3)
Very refreshed	<input type="checkbox"/> (4)

6. You have decided to engage in some physical exercise. A friend suggests that you do this one hour twice a week and the best time for him is 7:00-8:00 a.m. Bearing in mind nothing else but your own “feeling best” rhythm, how do you think you would perform?

Would be in good form	<input type="checkbox"/> (4)
Would be in reasonable form	<input type="checkbox"/> (3)
Would find it difficult	<input type="checkbox"/> (2)
Would find it very difficult	<input type="checkbox"/> (1)

7. At what time in the evening do you feel tired and, as a result, in need of sleep?

8:00-9:00 p.m.	<input type="checkbox"/> (5)
9:00-10:15 p.m.	<input type="checkbox"/> (4)
10:15 p.m. – 12:30 a.m.	<input type="checkbox"/> (3)
12:30-1:45 a.m.	<input type="checkbox"/> (2)
1:45-3:00 a.m.	<input type="checkbox"/> (1)

8. You wish to be at your peak performance for a test which you know is going to be mentally exhausting and lasting for two hours. You are entirely free to plan your day, and considering only your own "feeling best" rhythm, which ONE of the four testing times would you choose?

8:00-10:00 a.m.	_____ (4)
11:00 a.m. – 1:00 p.m.	_____ (3)
3:00-5:00 p.m.	_____ (2)
7:00-9:00 p.m.	_____ (1)

9. One hears about "morning" and "evening" types of people. Which ONE of these types do you consider yourself to be?

Definitely a morning type	_____ (4)
More a morning than an evening type	_____ (3)
More an evening than a morning type	_____ (2)
Definitely an evening type	_____ (1)

10. When would you prefer to rise (provided you have a full day's work—8 hours) if you were totally free to arrange your time?

Before 6:30 a.m.	_____ (4)
6:30-7:30 a.m.	_____ (3)
7:30-8:30 a.m.	_____ (2)
8:30 a.m. or later	_____ (1)

11. If you always had to rise at 6:00 a.m., what do you think it would be like?

Very difficult and unpleasant	_____ (1)
Rather difficult and unpleasant	_____ (2)
A little unpleasant but no great problem	_____ (3)
Easy and not unpleasant	_____ (4)

12. How long a time does it usually take before you "recover your senses" in the morning after rising from a night's sleep?

0-10 minutes	_____ (4)
11-20 minutes	_____ (3)
21-40 minutes	_____ (2)
More than 40 minutes	_____ (1)

13. Please indicate to what extent you are a morning or evening *active* individual.

Pronounced morning active (morning alert and evening tired)	_____ (4)
To some extent, morning active	_____ (3)
To some extent, evening active	_____ (2)
Pronounced evening active (morning tired and evening alert)	_____ (1)

*Note:* Scoring is indicated in parentheses beside each score anchor.

## References

1. Torsvall, L. & Akerstedt, T. (1980). A diurnal type scale. Construction, consistency and validation in shift work. *Scandinavian Journal of Work Environment Health*, 6, 283–290.
2. Smith, C. S., Reilly, C., & Midkiff, K. (1989). Evaluation of three circadian rhythm questionnaires with suggestions for an improved measure of morningness. *Journal of Applied Psychology*, 74(5), 728–738.
3. Horne, J., & Ostberg, O. (1976). A self-assessment questionnaire to determine morningness-eveningness in human circadian rhythms. *International Journal of Chronobiology*, 4, 97–110.

## Representative Studies Using Scale

Mitchell, R. J. & Williamson, A. M. (2000). Evaluation an 8 hour versus a 12 hour shift roster on employees at a power station. *Applied Ergonomics*, 31(1), 83–93.

Waage, S., Moen, B. E., Pallesen, S., Eriksen, H. R., Ursin, H., Akerstedt, T., & Bjorvatn, B. (2009). Shift work disorder among oil rig workers in the North Sea. *Sleep*, 32(4), 558–565.